CONSTRUCTION EQUIPMENT

JMX 8-394539 VOLVO EC380E 314333 - REAR LEFT FINAL DRIVE

Sample No: VCP449337
Oil Type: GEAR OIL SAE 80W90
Job No: 8-394539

STRONGCO EQUIPMENT INC.
1640 ENTERPRISE ROAD
MISSISSAUGA, ON
CA L4W 4L4
Contact: Janice Cripps
jcripps@strongco.com
T: (905)565-3876
F: (905)670-2338

SAMPLE INFORMATION

Sample Number		**VCP449337**	VCP347155	VCP299346	---
Sample Date		**07 Mar 2024**	12 Aug 2022	27 Jul 2021	---
Machine Hours		**4157**	2084	503	---
Oil Hours		**0**	0	0	---
Oil Changed		**Changed**	Changed	Changed	---
Sample Status		**SEVERE**	ABNORMAL	NORMAL	---

OIL CONDITION

Visc @ 40°C	cSt	▲ **55.1**	▲ 60.8	173	---

CONTAMINATION

Water	%	**NEG**	NEG	NEG	---
Silicon	ppm	▲ **1280**	▲ 697	10	---
Sodium	ppm	**49**	38	2	---
Potassium	ppm	**79**	46	2	---

WEAR METALS

PQ		▲ **2604**	754	---	---
Iron	ppm	▲ **5771**	▲ 3082	178	---
Copper	ppm	**12**	5	<1	---
Lead	ppm	**1**	<1	0	---
Tin	ppm	**0**	0	0	---
Aluminum	ppm	**255**	133	2	---
Chromium	ppm	**52**	25	4	---
Molybdenum	ppm	**5**	2	<1	---
Nickel	ppm	**3**	0	<1	---
Titanium	ppm	▲ **15**	10	<1	---
Silver	ppm	**<1**	3	0	---
Manganese	ppm	**65**	22	4	---
Vanadium	ppm	**0**	<1	0	---

ADDITIVES

Calcium	ppm	**562**	480	9	---
Magnesium	ppm	**105**	39	3	---
Zinc	ppm	**15**	33	12	---
Phosphorus	ppm	**2351**	1873	455	---
Barium	ppm	**0**	3	6	---
Boron	ppm	**209**	138	2	---

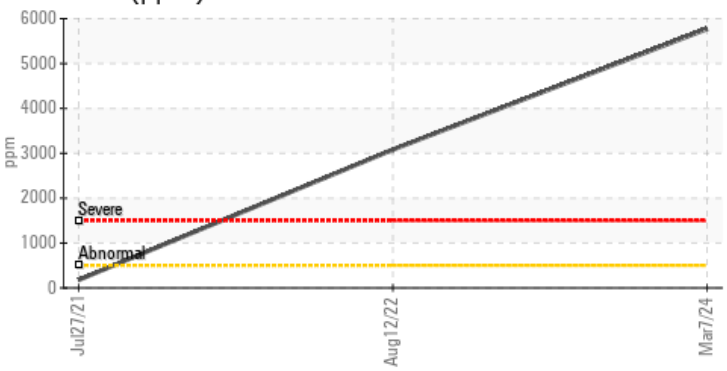
Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.Chromium and iron ppm levels are severe. PQ levels are abnormal. Titanium ppm levels are abnormal. Aluminum ppm levels are noted. Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component. Viscosity of sample indicates oil is within SAE 80 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

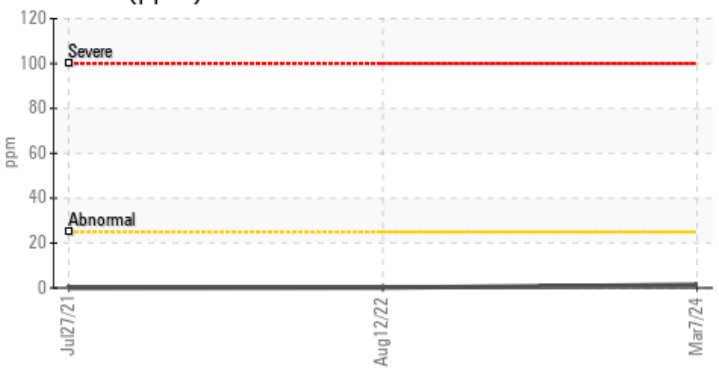
Depot: SHEMIS
Unique No: 5746693
Signed: Kevin Marson
Report Date: 13 Mar 2024

GRAPHS

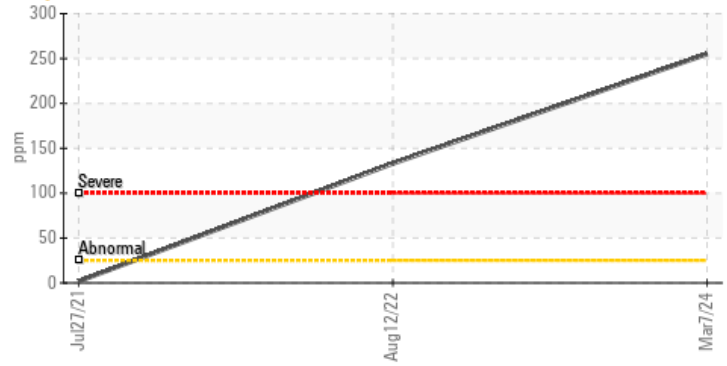
Iron (ppm)



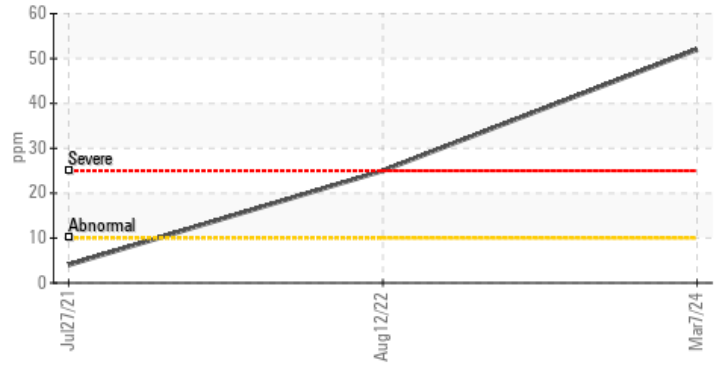
Lead (ppm)



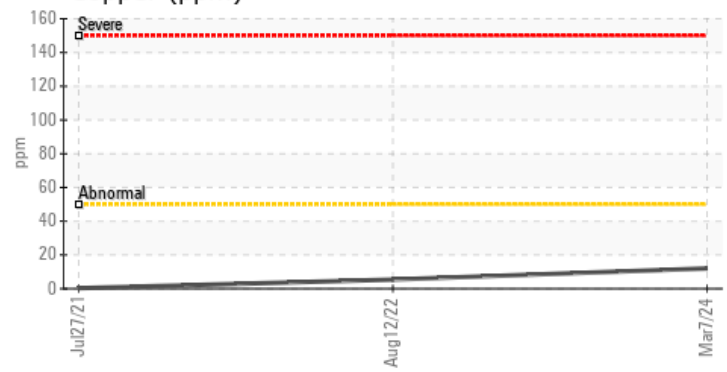
Aluminum (ppm)



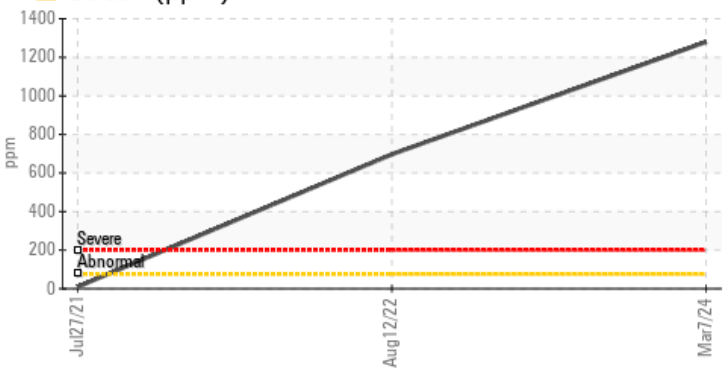
Chromium (ppm)



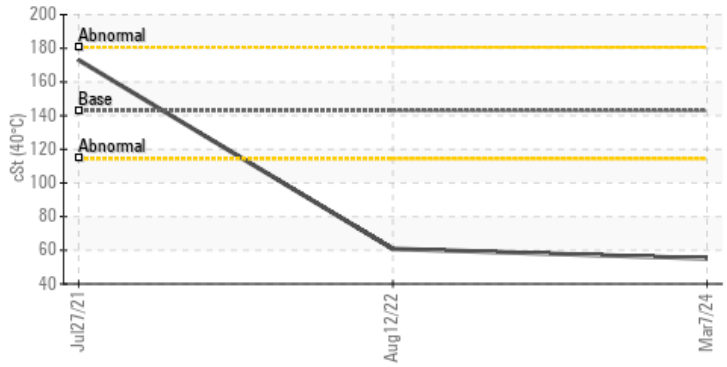
Copper (ppm)



Silicon (ppm)



Viscosity @ 40°C



PQ